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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,024	01/15/2002	Ytsen Wielstra	NL010052	5698

24737 7590 11/04/2005

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EXAMINER

METZMAIER, DANIEL S

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/047,024

Applicant(s)

WIELSTRA ET AL.

Examiner

Daniel S. Metzmaier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claims 1-11 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2 and 4-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Nogomi et al, US 5,700,391. Nogomi et al (at least example 12) discloses the combination of solution (A) and solution (L). Solution (A) (example 1) comprises silica particles formed by sol-gel formation and having a particle size of 20 nm under basic conditions and would be expected to be basic. Solution (L) is formed from tetraethoxysilane (second organosilane), methyltriethoxysilane (first organosilane), and tetraisopropoxytitanium was mixed with N-methylpyrrolidone forming solution (L). Said basic silica solution (A), 30 gm, is combined with 70 gm of solution (L). Said combination would have been expected to have been basic since the no acid was added and the silica of solution (A) was formed under basic conditions.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nogomi et al, US 5,700,391. Nogomi et al disclose base catalysed coatings as set forth in the above anticipation rejection.

To the extent Nogomi et al differs from the claims in the organo group of the first organosilane compound in the coating.

Nogomi et al (column 3, lines 8-22) discloses the R1 group may be a 3-glycidoxypropyl and R2 may be 1-5 alkyl groups, i.e., methyl.

It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to employ the 3-glycidoxypropyltrimethoxysilane for the exemplified methyltriethoxysilane as an obvious functional equivalent of the compounds exemplified and as a clearly contemplated species for Formula (2) component of the Nogomi et al reference. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of applicants' invention to employ the 3-glycidoxypropyltrimethoxysilane for

its known coupling or adhesive properties in forming coatings taught in the Nogomi et al reference.

6. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JSR Corporation, EP 1 022 318 A2, taken with Nogomi et al, US 5,700,391. JSR Corp (Tables 8-10, 13, paragraphs [0146] and [0152] et seq) discloses coating compositions employing silica, organosilane and metal alkoxide.

JSR Corp differs from the claims in the characterization of the pH of the compositions as under basic conditions.

JSR Corp (paragraph [0152] to [0159] and [0162]) discloses the use zirconium, titanium and aluminum alkoxides as agents to increase the speed of curing as well as alkali compounds, basic compounds and amine compounds, which would have resulted in the method of adding under basic conditions.

JSR Corp (paragraph [0162]) further teaches the component (f), which may include the metal alkoxides, may be in the form of a combination of two or more substances.

Nogomi et al (at least example 12) discloses the combination of solution (A) and solution (L). Solution (A) (example 1) comprises silica particles formed by sol-gel formation and having a particle size of 20 nm under basic conditions and would be expected to be basic. Solution (L) is formed from tetraethoxysilane (second organosilane), methyltriethoxysilane (first organosilane), and tetraisopropoxytitanium was mixed with N-methylpyrrolidone forming solution (L). Said basic silica solution (A), 30 gm, is combined with 70 gm of solution (L). Said combination would have been

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expected to have been basic since the no acid was added and the silica of solution (A) was formed under basic conditions.

It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ basic curing agents as alkali compounds, basic compounds and amine compounds; which are known to be basic and would be expected to result in a basic composition. Said curing agents are known in the art as condensation catalyst conventionally known in the art as shown by the Nogomi et al reference for closely related coating systems.

Regarding claims 2 and 3, JSR Corp (paragraph [0152] and [0159]) discloses the metal diketonates of said zirconium, titanium and aluminum metals. Regarding claims 4, 5 and 6, please see Tables 8-10 and 13 of JSR Corporation.

Regarding claims 8-11, the components are disclosed in the JSR Corp references for their use in coating substrates for the advantage resisting fouling, durability and transparency.

Nogomi et al differs from claim 3 in the use of the metal diketanoate.

JSR Corp (paragraph [0152] to [0159] and [0162]) discloses the use zirconium, titanium and aluminum alkoxides as agents to increase the speed of curing as well as alkali compounds, basic compounds and amine compounds, which would have resulted in the method of adding under basic conditions.

It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ the titanium diketanoates as agents to increase the speed of curing as well as alkali compounds, basic compounds and amine compounds,

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which would have resulted in a suitable insulative coating taught in the Nogomi et al reference.

Response to Arguments

7. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Applicants comments regarding the JSR Corp reference have not been deemed persuasive since all disclosures in a reference must be considered for what it fairly teaches those of ordinary skill in the art, not just preferred embodiments or specific working examples. *In re Boe*, 355 F2d 961, 148 USPQ 507, (CCPA, 1966). *In re Chapman*, 357 F2d 418, 148 USPQ 711, (CCPA, 1966). *In re Mills*, 470 F2d 649, 176 USPQ 196, (CCPA, 1972). In the instant case, the prior art clearly contemplates the use coating compositions under basic conditions employing the components claimed.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any


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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Daniel S. Metzmaier
Primary Examiner
Art Unit 1712

DSM